

are possible. Accordingly, the novel architecture is intended to embrace all such alterations, modifications and variations that fall within the spirit and scope of the appended claims. Furthermore, to the extent that the term “includes” is used in either the detailed description or the claims, such term is intended to be inclusive in a manner similar to the term “comprising” as “comprising” is interpreted when employed as a transitional word in a claim.

What is claimed is:

1. A key switch assembly, comprising:
a key button having a display portion;
a movement assembly in contact with the key button for facilitating vertical movement of the key button, the movement assembly defining an aperture through which light is projected onto the display portion; and
a feedback assembly offset from a center of the key button and in contact with the movement assembly for providing tactile feedback.
2. The assembly of claim 1, wherein the feedback assembly includes a flexible dome that is offset from the aperture and which provides the tactile feedback.
3. The assembly of claim 2, wherein the flexible dome includes an optical marker that is sensed when the key button is in a down position.
4. The assembly of claim 2, wherein the flexible dome extends through one or more flexible substrates when compressed to close a switch contact that indicates the key button is in a down position.
5. The assembly of claim 1, further comprising a contact arm affixed to the movement assembly, the contact arm sensed to determine position of the key button.
6. The assembly of claim 5, wherein the contact arm includes an optically detectable surface that is sensed when the key button is in a down position.
7. The assembly of claim 1, wherein the movement assembly includes scissor structures that cooperate to facilitate vertical movement of the key button, the scissor structures on opposing sides of the aperture and through which the light is projected onto the display portion.
8. The assembly of claim 7, wherein the scissor structure includes an optical paddle the position of which indicates position of the key button.
9. The assembly of claim 1, wherein the movement assembly includes a hollow key stem in a silo that facilitates vertical movement of the key button, the hollow key stem and silo allowing light through for projection onto the display portion.
10. A key switch assembly, comprising:
a key button having a display area on which an image is presented;
a movement assembly in contact with the key button for facilitating movement of the key button, the movement assembly defining an aperture through which the image is projected onto the display area; and

a tactile feedback assembly offset from the movement assembly for providing tactile feedback.

11. The assembly of claim 10, wherein the tactile feedback assembly includes an elastomeric dome that provides the tactile feedback, the elastomeric dome includes an optical marker that is sensed via an optical surface when the key button is in a down position.

12. The assembly of claim 10, wherein the movement assembly includes a switch post affixed thereto, the switch post includes an optically detectable surface that is sensed when the key button is in a down position.

13. The assembly of claim 10, wherein the movement assembly includes a scissor structure located in the periphery of the switch assembly and that operates under movement of the key button, the aperture formed through the scissor structure and via which the image is projected onto the display area.

14. The assembly of claim 10, wherein the movement assembly includes a hollow key stem attached to the key button, the key stem operating in cooperation with a silo during movement of the key button, the aperture formed through the key stem and silo to allow presentation of the image onto the display area.

15. A method of providing a key switch, comprising:

- creating a display area in a key button of a key switch;
- mounting the key button on a movement assembly for moving the key button between an up position and a down position;
- projecting an image onto the display area through an aperture of the movement assembly;
- imposing tactile feedback on the key button from outside the aperture when moving to the down position; and
- detecting closure of the key switch when in the down position.

16. The method of claim 15, further comprising projecting the image using an optical element on which the key switch is positioned.

17. The method of claim 15, further comprising affixing a contact arm to the key button and optically detecting the down position based on a reflective end of the contact arm.

18. The method of claim 15, further comprising affixing an optical paddle to the movement assembly and optically detecting the down position based on a reflective end of the optical paddle.

19. The method of claim 15, wherein the movement assembly is a scissor structure through which the image is projected onto the display area.

20. The method of claim 15, wherein the movement assembly is a stem-silo structure through which the image is projected onto the display area.

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